

PATENT COOPERATION TREATY

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INT'L. PROSECUTION

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL SEARCH REPORT
OR THE DECLARATION

(PCT Rule 44.1)

or file
cc p/m

From the INTERNATIONAL SEARCHING AUTHORITY

To:
CHRISTOPHER A. VANDERLAAN
LYON & LYON LLP
633 WEST FIFTH STREET
SUITE 4700
LOS ANGELES, CA 90071

Applicant's or agent's file reference 260/089-PCT	Date of Mailing (day/month/year) 01 MAY 2001
FOR FURTHER ACTION See paragraphs 1 and 4 below	
International application No. PCT/US01/01738	International filing date (day/month/year) 18 January 2001 (18.01.2001)
Applicant CADENCE DESIGN SYSTEMS, INC.	

1. ☒ The applicant is hereby notified that the international search report has been established and is transmitted herewith.
Filing of amendments and statement under Article 19:

The applicant is entitled, if he so wishes, to amend the claims of the international application (see Rule 46):

When? The time limit for filing such amendments is normally 2 months from the date of transmittal of the international search report; however, for more details, see the notes on the accompanying sheet.

Where? Directly to the International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland
Facsimile No.: (41-22) 740.14.35

7/1/01

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in rules 90 bis 1 and 90 bis 3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer Matthew Smith Telephone No. (703) 308-1782
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Form PCT/ISA/220 (July 1998)

PATENT COOPERATION TREATY

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

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LYON & LYON
INT'L. PROSECUTION

Applicant's or agent's file reference 260/089-PCT	FOR FURTHER ACTION	see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below
International application No. PCT/US01/01738	International filing date (day/month/year) 18 January 2001 (18.01.2001)	(Earliest) Priority Date (day/month/year) 18 January 2000 (18.01.2000)
Applicant CADENCE DESIGN SYSTEMS, INC.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the Report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No. 5



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/01738

Box III TEXT OF THE ABSTRACT (Continuation of Item 5 of the first sheet)

NEW ABSTRACT

Techniques for increasing flexibility in use of virtual component blocks (575) include a method for hardening a foundation block (500), a pin-unsrambling methodology for semi-hardened virtual component blocks, and parameterizable virtual component blocks. A method for hardening a foundation block (500) and utilizing it in a circuit design comprises the steps of defining a virtual component foundation block (575), hardening an interior region of the foundation block including at least the critical timing components such as the system bus. The foundation block (575) has a "soft collar" for allowing interface parameters to be specified when the foundation block (575) is incorporated into a circuit design. In addition, the foundation block (575) may comprise an internal, hierarchical clocking scheme for even clock distribution and optimum performance. For example, all internal clock delays may be padded, except the longest one, so that the clock signal arrives at all relevant reference points within the foundation block (575) at the same time.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/01738

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) : G06F 17/500

US CL : 716/001, 008

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 716/001, 008

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,377,213 A (AVERY et al) 19 NOVEMBER 1996 (19.11.1996), see abstract, column 3, lines 39-61; column 4, lines 32-67; column 5, lines 1-26; col 7, lines 41-67; col 8, lines 1-53.	1-2
Y	US 5,761,078 A (FULLER et al) 02 JUNE 1998 (02.06.1998), column 4, lines 63-67; column 5, lines 1-67.	1-2
A	US 5,581,669 A (VOTH) 03 DECEMBER 1996 (03.12.1996) entire document.	1-2
A	US 5,737,234 A (SEIDEL et al) 07 APRIL 1998 (07.04.1998) entire document.	1-2
A, P	US 6,154,873 A (TAKAHASHI) 28 NOVEMBER 2000 (28.11.2000) entire document.	1-2
A	US 5,838,583 A (VARADARAJAN et al) 17 NOVEMBER 1998 (17.11.1998) entire document.	1-2
A	SU et al, "A Timing-Driven Sof-Macro Placement and Resynthesis Method in Iteration with Chip Floorplanning," IEEE, April 1999, entire document	1-2

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

Date of mailing of the international search report

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231
Facsimile No. (703)305-3230

Authorized officer
Matthew Smith
Telephone No. (703) 308-1782

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/01738

Continuation of B. FIELDS SEARCHED Item3: WEST, IEEE

Search terms: virtual same component same harden\$; hard adj3 macro; hard macro; harden\$ same (block or macro); harden\$ same foundation same (block or macro); (passthrough or pass?through or feedthrough) same system bus